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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,522	02/19/2002	Yoshitaka Matsuyama	219499US3	1678

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

HYEON, HAE M

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,522

Applicant(s)

MATSUYAMA, YOSHITAKA

Examiner

Hae M Hyeon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 6-10, 12, 13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **“outer diameter R” recited on page 14, lines 5 and 6**. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the optical fiber cable having **at least one power line and information transmission line** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase “Not Applicable” should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.

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- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities: On page 1, line 20, full terminology for the abbreviation "LAN" is required.

Appropriate correction is required.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

5. Claims 16 and 17 are objected to because of the following informalities: Claims 16 and 17 recite, "A method for **preparing** an optical fiber cable ..." Because the body of the claim

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recites forming the sheath and heat-treating the partitioning spacer, claims 16 and 17 are not a method for preparing, but **a method of making**.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Priaroggia (4,784,462).

Priaroggia discloses an optical fiber cable comprising two or more optical fibers 6 and a partitioning spacer 4 housed in a space encircled by a sheath 7. The partitioning space 4 includes an axial portion and a plurality of partitioning plate portions 8 radially extending toward an inner circumferential surface of the sheath 7 from the axial portion. Each of the partitioning plate portions 8 includes an enlarged portion 9 at a leading end and a connecting portion 12 connecting the enlarged portion 9 to the axial portion. The space encircled by the sheath 7 is divided into a plurality of partitioned slots 5 by the partitioning plate portions 8, and only one respective optical fiber 6 is distributed in a single partitioned slot 5.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Priaroggia in view of the present specification page 19, lines 7-10.

While Priaroggia does not disclose the sheath 7 having the characteristics recited in claims 4 and 5, the present specification page 19, lines 7-10 states that the sheath recited in claims 4 and 5 already exists. However, Priaroggia teaches that the sheath 7 can be formed by extruding plastic or metallic material (see column 6, lines 55-57).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to replace the sheath taught by Priaroggia with the sheath taught by the present specification because the sheath taught by the present specification is already existing sheath.

10. Claims 11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Priaroggia in view of Koike et al (5,783,636).

Priaroggia does not disclose the optical fiber 6 to be graded refractive index plastic optical fiber. Priaroggia simply states "an optical fiber," which can be any type of optical fibers. Koike discloses a method of making graded refractive index plastic optical fiber. Furthermore, the graded refractive index plastic optical fiber is one of the commonly know optical fiber type in the art of an optical fiber.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to replace the optical fiber taught by Priaroggia with the graded refractive index plastic optical fiber taught by Koike because it only deals with using one type of optical fibers with another known optical fiber.

In regarding to claims 14 and 15, the examiner will not repeat the same rejection stated in the above paragraph 8 again since claims 14 and 15 have the same limitations as claims 4 and 5.

Allowable Subject Matter

11. Claims 2, 3, 6-10, 12, 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: None of the cited references discloses the partitioning spacer having the shape and the relations of dimensions as recited in claim 6; a partitioned slot provided with at least one tension member, power line, or information transmission line without an optical fiber provided therein and the partitioning spacer being heat-treated under a thermal environment at 70-90°C before preparation of the optical fiber cable.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US Patent No. 4,596,443 by Diemeer et al., US Patent No. 4,772,089 by Ide et al., US Patent No. 4,804,245 by Katayose et al., US Patent No. 5,087,110 by Inagaki et al., and US Patent No. 5,761,361 by Pfandl et al. disclose an optical fiber having a partitioning spacer.

US Patent No. 4,787,705 by Shinmoto et al., US Patent No. 5,892,873 by Tatat, and US Patent No. 6,500,365 B1 by Cecchi et al. disclose an outer sheath of an optical fiber being made with a thermoplastic resin by extrusion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 703-308-4802. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D Feild can be reached on 703-308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Hae M Hyeon
Examiner
Art Unit 2839

hnh
May 28, 2003

Hae Moon Hyeon